

A REVIEW OF THE BIRDS OF THATTAKAD BIRD SANCTUARY, KERALA

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INTRODUCTION

In the 19th Century when the British started various types of plantations, the Kannan Devan Hills (now known as Munnar) was one of their main targets for tea plantations in Kerala. To facilitate transport a road was constructed connecting Kannan Devan Hills with Cochin through the western slopes of the Western Ghats. The actual Ghat section of the road started from the right bank of the Periyar river, the second largest river in Kerala. Along the road many travellers' bungalows were constructed, Thattakad being first on the right bank of the river. The British also started the first large scale rubber plantations at 'Palamattam', close to Thattakad. In the early 1930s when Sálím Ali was on his way to the high ranges of the Western Ghats during the Ornithological Survey of Travancore and Cochin, he came through the Old Munnar road. Thattakad being the starting place of the Ghat, Sálím Ali selected it as one of his bird collection centres.

Sálím Ali noted the avifaunal diversity of Thattakad as one among the richest in his survey report. Unfortunately, the area had been exploited for cultivation, first, by the British and later by the locals. After independence some of these unauthorised encroachments were taken over by the Government and vast areas were planted with teak. In the 1980s the Kerala Government proposed to establish a bird sanctuary and asked Dr. Sálím Ali for advice. He immediately suggested that Thattakad should be the first Bird Sanctuary of Kerala. As a result during 1983 an area of 25.16 Sq.Km was declared as a Bird Sanctuary.

An intensive study on the flora and fauna of Thattakad Bird Sanctuary in Kerala was started in March 1994. The project is being funded by the

Kerala Forest Department (Wildlife) with a view to study the biodiversity of the area and population size of the various components for the preparation of a scientific management plan. Some of the data furnished below were obtained during the project work.

STUDY AREA

Thattakad Bird Sanctuary (10° 10' N, 76° 40'-76° 45' E) has an area of 25.16 Sq.Km and is bordered by the Periyar and Kuttampuzha rivers on two sides and Kolombathodu and Orulamthanni on the other two sides. It is almost at the foot of the western slopes of the Western Ghats and the altitude ranges from 50-250 m above msl. The highest point in the Western Ghats, the Anamudi Peak (2695 m), is directly uphill of Thattakad. The terrain is undulating and includes two high peaks called Thoppimudi and Njayapillimudi. The river bank has been submerged for about 6 to 10 m by the water body created by an irrigation project, the Bhoothathankettu barrage on the main stream of Periyar river. This has destroyed almost all the luxuriant riverain forest which existed along the banks. About 1/3 of the total Sanctuary area is under monoculture, mainly of teak and mahogany. The remaining forest consists of partly disturbed evergreen, semi-evergreen, moist deciduous Eeta (*Ochlandra travancorica*) forests, and grassland with rock outcrops or even land holdings ranging from 5 0.02 hectares to 4.05 to 6.07 hectares or even more along the fringes of the Sanctuary. However, there are no settlements inside the Sanctuary. Since the declaration of the area as a Sanctuary in 1983, there has been no regular forestry extraction and plantation activities inside the Sanctuary area. As a result, there is fairly thick forest undergrowth everywhere, including in the plantations.

The area was under Malayattoor forest division

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before the declaration of the Sanctuary but is now under Idukki Wildlife division. The climate is hot and humid. The mean annual temperature varies from 18°C to 37°C. Rainfall is received both during Southwest and Northeast monsoon seasons. However, nearly 75% of the precipitation occurs during the Southwest monsoon, from June to mid September. January and February are generally dry months. The average rainfall is 3000 mm. Strong winds with a speed of over 60 km per hour are common during the monsoon. The controversial Pooyamkutty Hydroelectric project area is very close to Thattakad Bird Sanctuary.

AVIFAUNA

Thattakad was described as the 'richest bird habitat in peninsular India' by the late Sálim Ali. He reported 163 species of birds from Thattakad alone during the 1930s survey. These were mostly Tropical forest species.

Sálim Ali (1936) in his report JBNHS 37 (4): 835-836 states "The forest which is principally confined to the right bank of the river, consists in patches of both deciduous and tropical evergreen with frequently a mixture of the two. On the right bank of the river also, there is a series of plantations of the Forest Department: Teak, Rubber and *Bombax*. The first is about 6 years old, mostly devoid of undergrowth and poor in bird life. The rubber is about 25 years old, but owing to default of the contractor the weeding has not been done for some years with the result that Lantana, '*Incha*' and a host of other species have overrun the place in impenetrable denseness. This area is the best of the three as regards birds. The *Bombax* plantations (0.25 hectare) is only one year old and little more than a forest clearing so far. When the trees are old enough to flower, this place will become a paradise for the birdwatcher.

"Along the banks of Periyar River, and those of the many small streams that flow into it, are dense clumps of *Eeta* i.e. *Ochlandra travancorica* and they are likewise often lined with 'Ome' trees *Trema orientalis* whose berries are a great attraction to all

frugivorous birds.

"No waterbirds were seen except Kingfishers, *Ardeola grayii*, *Anhinga melanogaster* and *Motacilla maderaspatensis* which were usually present in small numbers. The country hereabouts is stiff with wild elephants and bird collection often provided unexpected thrills".

Comparing this with the present status of these areas, we find that most of the natural types have degraded due to constant human interference and cattle grazing. Rubber and *Bombax* plantations are completely replaced with teak plantations. Lantana undergrowth is absent inside the sanctuary. *Bombax* plants are very few in number and there is no natural regeneration of this species inside the sanctuary.

Eeta has almost vanished from the riverside due to formation of the lake. Even though it exists inside the sanctuary in some isolated patches, it is much thinned out due to over-extraction for commercial purposes and from forest fires. 'Ome' (*Trema orientalis*) has also become uncommon due to the regular management practices for the protection of teak plantations.

After the creation of the lake, a considerable increase in water bird population was noticed. Over 30 species of water birds alone have been recorded from Thattakad now. Their population shows an increasing trend now.

The elephant which was common during Sálim Ali's survey was totally absent from the area for a long time, but has now started reappearing during a certain season. During his survey there was no water bird habitat in Thattakad except for the two rivers. Since the 1960s conditions have changed entirely. There is a large water body constituted by the Boothankettu Dam. The depth of the water varies from 1.82 m to 35 m. Water vegetation has established itself over a substantial area providing facilities for water birds to feed and breed, thereby increasing the total population of the avifauna of Thattakad by at least 10 to 15%.

Presently, there are about 270 species of birds reported from Thattakad. About 40% of the total species are migratory, while the others are resident or local migrants. Some are very rare, with only

one or two sight records while others are very common. There are also species which were recorded as common by Sálím Ali during 1930's which have become very rare or totally absent. The Great Indian Hornbill, Malabar Pied Hornbill, Laughing Thrush, etc. were recorded as common during the thirties, but have now completely vanished from the study area. There is a fairly good population of birds like Malabar Trogon, Shama, Frogmouth. The peninsular Bay owl which has only been recorded from Parambikulam so far was noticed in Thattakad also. The Black Crested Baza is a breeding resident of this area. Water birds like the Little Cormorant, Large Cormorant, Darter, Shag, Dabchick, Whistling Teal, Bluewinged Teal, Pintail duck, etc. were not recorded by Sálím Ali but have now become very common birds in the water spread area. The Openbill Stork and Purple Heron have made their appearance only two years ago. The Pheasant-tailed and the Bronzewinged Jacanas have started breeding in the water bodies in large numbers. In recent years, there is a seasonal influx of Terns such as the Common Tern, River Tern and the Whiskered Tern, with a population of over a thousand birds during winter migration. The Grey Jungle fowl and the Red Spur fowl population in the sanctuary is fairly good, whereas the quail population is low, even though more than one species are met with.

The large hole nesting birds have either vanished or are very few in numbers, indicating a lack of suitable nesting site. As for their food, it is abundant throughout the year. The frogmouth population was rare, as reported by Sugathan (1981) who conducted a frogmouth population survey during 1979 in the Western Ghats. After 1984, when the area came under the Wildlife Protection Act bamboo and Eeta cutting was completely stopped. The vegetation has now become re-established, enabling frogmouth to increase in numbers. Small sunbirds are one of the altitudinal migrants to the sanctuary in large numbers during November-December every year. Similarly, the Blossomheaded and Roseringed parakeets make their appearance in Thattakad only during August-September in large

numbers.

Among the long distance migrants, warblers and flycatchers arrive first. We also get a transit population of flycatchers. A large population of warblers stay back for a long duration. Wagtails like forest wagtails, grey wagtails, etc. are some of the migratory species which stay for a long time.

Kingfishers and bee-eaters nest on the loose sand deposits along the river bed in fairly good numbers. Drongos are common except for the Haircrested Drongo. Owls are many and most of them are breeding residents of the area. Among the swifts and swallows the Eastern Swallow is worth mentioning. They come in thousands during certain days and roost on telegraph and electric wires around the sanctuary. The sanctuary has a small breeding population of the Crested Tree Swift. The recent appearance of Bluewinged teals and Pintail ducks are interesting additions to the fauna. Larger populations of these species have been recorded from Vembanad lake for many years, which lies at a distance of about 35 km as the crow flies from the sanctuary. This year's trend indicates that their population at Thattakad will increase during the coming years.

A detailed study on the population, habitat preference and reasons for disappearances and appearances of certain other species is in progress under the 'Ecology of Thattakad Project'.

BIRD FAUNA OF THATTAKAD

1. Little Grebe (*Tachybaptus ruficollis*)

Not very common. Their presence was only recently noticed in the shallow water bodies of the dam catchment in the sanctuary area. Breeding was recorded but the birds totally disappeared during July, August and September when the dam is opened. Not recorded by SA.

2. Little Cormorant (*Phalacrocorax niger*)

Common. Recorded only after the construction of the dam. Feeds in the catchment and paddy fields. Breeding not recorded from the sanctuary but seen

breeding about a kilometre away from the sanctuary. Not recorded by SA.

3. Indian Shag (*Phalacrocorax fuscicollis*)

Only two records within the last 3 years. They are not regular visitors. Seen in the catchment areas. Not recorded by SA.

4. Cormorant (*Phalacrocorax carbo*)

Only two records within the last 3 years. They are not regular visitors. Seen in the catchment areas. Not recorded by SA.

5. Darter or Snake Bird (*Anhinga rufa*)

Not uncommon in the water bodies. There is a constant increase in their population, but breeding not recorded around the sanctuary. During certain months their population fluctuates, going down to a minimum in July, August, September and thereafter slowly increasing to reach a maximum in February and March. Not recorded by SA.

6. Grey Heron (*Ardea cinerea*)

Very few and irregular, only 3 or 4 records from the sanctuary area. Breeding not recorded, affects the water edges with marshy vegetation. Not recorded by SA.

7. Purple Heron (*Ardea purpurea*)

Not uncommon. Few individuals are regularly recorded from the low water areas of the catchment. This year an increase in population was noticed. Not seen breeding inside the sanctuary.

8. Little Green Heron (*Ardeola striatus*)

Very rare visitor to the sanctuary water body. Seen only for a few days. Not recorded by SA.

9. Pond Heron or Paddy Bird (*Ardeola grayii*)

Common all along the water edges and even along small streams inside the sanctuary. Breeding colony recorded not from within the sanctuary but about a kilometre away. Shares the nesting trees with little cormorants. Nests mainly on Tamarind trees.

10. Cattle Egret (*Bubulcus ibis*)

Commonly seen but totally absent during the breeding season. Seen deep into the forest, in the company of cattle and sometimes even with wild elephants.

11. Large Egret (*Ardea alba*)

Not uncommon during the season along the shallow water bodies. Totally absent from June to September. No breeding records from and around the sanctuary area.

12. Smaller Egret (*Egretta intermedia*)

Rarely recorded in the company of other egrets in the water body. Seen only from October to February.

13. Little Egret (*Egretta garzetta*)

Somewhat common during the season October to February every year in the company of other egrets in the shallow water areas. Totally absent from June to September. Not recorded by SA. No breeding record within the sanctuary limits.

14. Night Heron (*Nycticorax nycticorax*)

Not very common. A few birds exist within the sanctuary limit around pandanus plants near the water body. Even though breeding was not recorded from the sanctuary area, subadult birds are seen every year with the adults. Not recorded by SA.

15. Chestnut Bittern (*Ixobrychus cinnamomeus*)

Even though their population is fairly good outside the sanctuary, they are rare within. Mostly seen among vegetation along the water's edge. No records of breeding of this species from the sanctuary, though they are seen throughout the year.

16. Malay or Tiger Bittern (*Gorsachius melanolophus*)

Rare. Only two sight records from the sanctuary area. Can be a seasonal migrant. Not recorded by SA.

17. Yellow Bittern (*Ixobrychus sinensis*)

Very few, only 3 records from the Lake's bank.

18. Black Bittern (*Ixobrychus flavicollis*)

Their population is larger than that of the other bitterns. Seen along the banks of the Lake and even along stream banks of the sanctuary.

19. Openbill Stork (*Anastomus oscitans*)

Only recorded during the last two years from Thattakad, as many as 61 birds were observed along the low water areas, feeding on *Pila*. It was noticed that they collect *Pila* from water, keep a few of them at one place and feed on the contents. Clumps of empty shells were also seen along the water's edge. They were not seen breeding within the sanctuary limits but subadult birds have been recorded along with the adult. The number fluctuates during certain months. Not recorded by SA.

20. Whitenecked Stork (*Ciconia episcopus*)

Rare, only 3 records from the sanctuary. Not breeding. Not recorded by SA.

21. Pintail Duck (*Anas acuta*)

Migratory. Not recorded from this area till two years ago. Last year about 60+ were seen flying over and later about 20+ seen in one of the water bodies of the sanctuary. Over 3000 birds were seen in the catchment of Edamalayar dam which was constructed only a few years back and is only about 15 km away from the sanctuary area. The species was not recorded by SA.

22. Spotbill Duck (*Anas poecilorhyncha*)

Seasonal visitor along with the pintails. Only 5 to 10 birds were seen feeding in the inland water bodies of the catchment in the sanctuary area. No breeding records. Not recorded by SA.

23. Garganey (*Anas querquedula*)

Migratory. Only about 5 birds were recorded from the water body in the sanctuary for two days in January in the company of other ducks and teals. Not recorded by SA.

24. Blackwinged Kite (*Elanus caeruleus vociferus*)

Not uncommon, in the open patches of the sanctuary. About 8 have been recorded constantly, of which two pairs were seen breeding within the sanctuary limit on trees along the edges of forest clearings.

25. Black Crested Baza (*Aviceda leuphotes*)

Not uncommon, in the evergreen patches of the sanctuary. About six have been recorded constantly, of which two pairs were seen breeding within the sanctuary limit on tall trees. They move in flocks of 5 to 6 during the non-breeding season.

26. Honey Buzzard (*Pernis ptilorhyncus*)

Only two records from the forest area inside the sanctuary. Not regular. No records of breeding within the sanctuary limit.

27. Pariah Kite (*Milvus migrans govinda*)

Not common, but seen along the river course especially when the water is low in the reservoir. Even though they are not recorded breeding inside the sanctuary the nests are seen on trees at the nearest town which is about 10 km from the sanctuary.

28. Brahminy Kite (*Haliastur indus*)

Not uncommon inside the sanctuary as well as along the catchment and habitation along the boundary of the sanctuary. Breeding recorded along the sanctuary's edge.

29. Shikra (*Accipiter badius butleri*)

Resident, not uncommon in the light wooded areas of the sanctuary. Breeding recorded inside the sanctuary.

30. Crested Goshawk (*Accipiter trivirgatus*)

Uncommon. Resident in the deciduous and evergreen forest areas, but not seen breeding within the sanctuary.

31. Sparrow-Hawk (*Accipiter nisus*)

Winter visitor, not common. Seen in the well wooded forest areas of the sanctuary.

32. Besra Sparrow-Hawk (*Accipiter virgatus*)

Rare in the moist deciduous and evergreen forest areas. Resident but nesting not confirmed from the sanctuary.

33. Crested Hawk-Eagle (*Spizaetus cirrhatus*)

Rare, resident. One pair nested in the sanctuary in 1984 in semi-evergreen forest.

34. Bonelli's Eagle (*Hieraaetus fasciatus*)

Rare. Only 3 records from the sanctuary. Though resident, breeding not yet recorded within the sanctuary. They are confined to well wooded areas.

35. Booted Hawk-Eagle (*Hieraaetus pennatus*)

Rare. Only one record, perhaps a winter visitor to the semi-evergreen forest area of the sanctuary.

36. Black Eagle (*Ictinaetus malayensis*)

Casual visitor to the open rocky hills of the sanctuary. Always seen in gliding flight. There are few records during recent years from the sanctuary area.

37. Grey Headed Fishing Eagle (*Ichthyophaga ichthyaeus*)

Common. Resident and breeding in the sanctuary. Roosts on dead tree stumps very close to the water body.

38. Scavenger Vulture (*Neophron percnopterus*)

Very rare, seen only three or four times in the sanctuary, possibly a straggler. Always seen soaring alone high up in the sky.

39. Pale-Harrier (*Circus macrourus*)

Rare. Winter visitor to the grass-covered hillsides and open water body.

40. Montagu's Harrier (*Circus pygargus*)

Not rare during winter. A few birds are seen flying over open water bodies of the sanctuary and sometimes seen perched on isolated poles on the water's edge. Migratory. Not recorded by SA.

41. Pied Harrier

(*Circus melanoleucos*)

Rare. Only two or three records. Possibly a passage migrant. Seen around the lake habitat. Winter visitor. Not recorded by SA.

42. Marsh Harrier (*Circus aeruginosus*)

Winter visitor. Only two records, seen in an open grassland encircled by water.

43. Short-Toed Eagle (*Circaetus gallicus*)

Rare. Resident eagle, recorded from the cultivated area close to the sanctuary. Breeding not recorded. Not met with by SA.

44. Crested Serpent Eagle (*Spilornis cheela*)

Resident. Perhaps the commonest among the eagles of Thattakad. Couple of nests with young and eggs were recorded both from the natural forest as well as from the Teak plantations. Affects forest and plantation areas.

45. Osprey (*Pandion haliaetus*)

Winter visitor. Rare. Recorded during migratory season from the open water bodies of the sanctuary. Not recorded by SA.

46. Peregrine Falcon (*Falco peregrinus*)

Rare. Winter visitor. Only 5 or 6 records from the open water body and grassland surrounded by water in the sanctuary area.

47. Redheaded Merlin (*Falco chicquera*)

Only one record of this species from Thattakad near the top of a hill encircled by forest, possibly a straggler. Not recorded by SA.

48. Kestrel (*Falco tinnunculus*)

Winter visitor. Not uncommon in the lowland forest, plantation and grassland with scrub.

49. Indian Kestrel

(*Falco tinnunculus objurgatus*)

Possibly a local migrant seen during certain months gliding along the hill tops.

50. Travancore Red Spurfowl
(*Galloperdix spadicea stewarti*)

Common, resident. Affects scrub jungle and deep forest, often feeds along with domestic hens of nearby habitations.

51. Grey Jungle Fowl (*Gallus sonneratii*)

Resident, common. Forest as well as plantations and the forested habitat near human settlements close to the sanctuary. Breeds in large numbers.

52. Banded Crake (*Rallina eurizonoides*)

Rare, status unknown. Recorded during migratory season from the water's edge close to forest areas. Breeding not yet recorded.

53. Ruddy Crake (*Porzana fusca*)

Rare. Only two records. Seen in inland marshy area. Breeding not recorded.

54. Baillon's Crake (*Porzana pusilla*)

Rare, winter visitor. Only two records from the sanctuary among the *Ochlandra* undergrowth near the water body.

55. Whitebreasted Waterhen
(*Amaurornis phoenicurus*)

Common, resident. Breeding in the scrub jungle and lightly wooded forest, even close to habitations and near the stream bed.

56. Kora or Water Cock (*Gallicrex cinerea*)

Rare, seasonal migrant to the marshes of the sanctuary. Breeding not recorded.

57. Pheasant-tailed Jacana (*Hydrophasianus chirurgus*)

A rare resident. Though it had been seen earlier outside the sanctuary, this year it bred inside the sanctuary. Seen on water vegetation in the water bodies of the sanctuary. Not recorded by SA.

58. Bronzewinged Jacana (*Metopidius indicus*)

More common than the previous species. Resident along the floating vegetation in the water

body. Breeds in fairly good numbers. The abundance has been noticed only during the last two years. Not recorded by SA.

59. Painted Snipe (*Rostratula benghalensis*)

Rare. Local migrant, only a few records from the sanctuary. Affects reedy marshes along inland water body.

60. Blackwinged Stilt (*Himantopus himantopus*)

Fairly common, winter visitor. Large influx in flocks along shallow water bodies are noticed during May and June. This species has not been recorded till recent years and was not seen by SA.

61. Small Indian Pratincole (*Glareola lactea*)

Uncommon. Status unknown. It was recorded as common when a large sand bank was available along the river course before the construction of the dam. It was also recorded breeding during that time.

62. Redwattled Lapwing (*Vanellus indicus*)

Common, resident, affects the grassland area along the shores of the water body. Breeds in fairly good numbers. Feeds along the water's edge and grassland in the sanctuary.

63. Little Ringed Plover (*Charadrius dubius*)

Rare, seasonal, subspecies not yet confirmed. Seen in the marshy places of the sanctuary only during winter migration. Not recorded by SA.

64. Green Sandpiper (*Tringa ochropus*)

Winter visitor in small numbers along the water's edge where there is marshy vegetation. Not recorded by SA.

65. Wood Sandpiper (*Tringa glareola*)

Fairly common during winter migration in marshy areas and water's edge. Not recorded by SA.

66. Common Sandpiper (*Tringa hypoleucos*)

Winter visitor, fairly common as isolated birds feeding along the water's edge and stream bed and roosting on mudflats or projecting rocks near water.

67. River Tern (*Sterna aurantia*)

Common during winter migration. All of them disappear by April end or May and start reappearing by October-November. Some larger unidentified terns were also noticed in flight. These birds are a recent introduction to this area and their numbers are increasing year after year. Not recorded by SA.

68. Greyfronted Green Pigeon (*Treron pompadora*)

A resident, common breeding bird of the evergreen and moist deciduous forests of the sanctuary. Large influx was noticed during the fruiting of *Bridelia squamosa*, *Aporosa lindleyana*, *Ficus* sp. etc. Local movements were also noticed according to the availability of certain fruits.

69. Orangebreasted Green Pigeon (*Treron bicincta*)

Resident, subject to local movements related to fruiting seasons. Common during February-March in the evergreen and moist-deciduous forest areas of the sanctuary.

70. Imperial Green Pigeon (*Ducula aenea*)

Resident, not uncommon and subject to local movements in the disturbed, evergreen and moist-deciduous forest areas.

71. Blue Rock Pigeon (*Columba livia*)

Resident, common outside the sanctuary. In flight occasionally they cross over the sanctuary. Other than this they do not belong in the sanctuary.

72. Nilgiri Wood Pigeon (*Columba elphinstonii*)

Not uncommon, resident with local movements between the moist evergreen forest and plantations with secondary forest.

73. Spotted Dove (*Streptopelia chinensis*)

Not very common inside the sanctuary but 25 to 30 recorded feeding in the cultivated area after harvest along the fringes of the sanctuary. Resident, a few nests seen along the degraded forest close to the boundary line.

74. Emerald Dove (*Chalcophaps indica*)

Outside the sanctuary in the teak plantation towards Punnekkad they are seen in fairly good numbers. Breeding inside the sanctuary is not recorded. Resident in the evergreen and deciduous forest areas.

75. Large Indian Parakeet (*Psittacula eupatria*)

A very rare, resident. Only two sightings inside the sanctuary. This bird was one of the very common species in the 1930s. Large scale capture during the 1950s and before, can be the reason for their reduction in numbers.

76. Roseringed Parakeet (*Psittacula krameri*)

A common resident almost all over the sanctuary. They go out of the sanctuary for feeding. Many nests were recorded within the sanctuary limits.

77. Blossomheaded Parakeet (*Psittacula cyanocephala*)

Resident, common. Large influx was noticed during harvesting seasons August-September, January-February. Breeding has been recorded.

78. Bluewinged Parakeet (*Psittacula columboides*)

Common during August-September, not recorded breeding inside the sanctuary. They could be altitudinal migrants from the higher elevations of the Western Ghats where they are recorded breeding.

79. Malabar Lorikeet (*Loriculus vernalis*)

A common, resident breeding inside the sanctuary. Moves locally according to the flowering of silk cotton, *Erythrina*, etc. and fruiting of fig species. Affects evergreen moist-deciduous and secondary undergrowth of the Teak plantations.

80. Redwinged Crested Cuckoo (*Clamator coromandus*)

Rare; migratory. Only a few records from the teak plantations of the sanctuary.

81. Pied Crested Cuckoo (*Clamator jacobinus*)

Not common. Does not seem to be a resident of the sanctuary. Only seen during December to March in the deciduous forest and teak plantations.

82. Common Hawk-Cuckoo (*Cuculus varius*)

Common, resident with population fluctuation during June-September season.

83. Indian Cuckoo (*Cuculus micropterus*)

Common during certain seasons. Breeding not yet recorded inside the sanctuary.

84. Cuckoo (*Cuculus canorus*)

Rare, migratory, seen in the forest as well as in plantations inside the sanctuary.

85. Indian Banded Bay Cuckoo (*Cacomantis sonneratii*)

Rare, status unknown in the forest areas as well as plantations of the sanctuary.

86. Indian Plaintive Cuckoo (*Cacomantis passerinus*)

Not common, status uncertain. Seen in the open forest areas. During the migratory season.

87. Rufousbellied Plaintive Cuckoo (*Cacomantis merulinus*)

Not common. Status uncertain. Not recorded breeding. Seen in the plantations and deciduous forests.

88. Drongo Cuckoo (*Surniculus lugubris*)

Only two records from the teak plantations of the Sanctuary.

89. Koel (*Eudynamis scolopacea*)

Common, resident, breeding mostly outside the sanctuary area. Population fluctuation noticed indicating local movements.

90. Crow Pheasant (*Centropus sinensis*)

A common, resident, breeding inside the sanctuary.

91. Lesser Coucal (*Centropus toulou*)

Rare, only 4 records from the scrub jungle and tall grass inside the sanctuary.

92. Barn Owl (*Tyto alba*)

Rare inside the sanctuary but recorded breeding atop a church building close to the sanctuary.

93. Grass Owl (*Tyto capensis*)

Not common. Resident in forest area near open grassland in the sanctuary. Breeding not yet recorded inside the sanctuary.

94. Peninsular Bay Owl (*Phodilus badius ripleyi*)

Very rare. Only a single specimen collected from the boundary of the sanctuary, while it was being attacked by crows. This is the second specimen so far collected from Kerala. Not recorded by SA.

95. Collared Scops Owl (*Otus bakkamoena*)

A fairly common, breeding resident inside the sanctuary, both in the forest as well as in the plantations.

96. Eagle Owl or Great Horned Owl (*Bubo bubo*)

Rare. Status unknown. Only one record from the sanctuary area.

97. Forest Eagle Owl (*Bubo nipalensis*)

Not uncommon, breeding resident in the evergreen and moist deciduous forest.

98. Brown Fish Owl (*Bubo zeylonensis*)

Common resident breeding inside the sanctuary. Affects well wooded forest area close to open water bodies.

99. Jungle Owlet (*Glaucidium radiatum*)

A common, breeding resident. Affects moist

deciduous forest, secondary jungle, plantations, etc.

100. Brown Hawk-Owl (*Ninox scutulata hirsuta*)

Rare, resident in the forested area near water bodies.

101. Short-eared Owl (*Asio flammeus*)

Rare, winter visitor, affects open grassy patches of the catchment. Not recorded by SA.

**102. Ceylon Frogmouth
(*Batrachostomus moniliger*)**

Rare. Breeding resident in the evergreen and *Ochlandra* areas of the sanctuary.

**103. Greateared Nightjar
(*Eurostopodus macrotis*)**

Rare, resident, breeding on the grass covered hilltop, close to the evergreen and moist deciduous forest.

104. Indian Jungle Nightjar (*Caprimulgus indicus*)

Rare. A single specimen was collected from Thattakad in December 1984. Possibly a winter visitor.

**105. Common Indian Nightjar
(*Caprimulgus asiaticus*)**

Rare, migratory, only one recorded during 1984 bird survey.

106. Franklin's Nightjar (*Caprimulgus affinis*)

Perhaps the commonest among nightjars in the sanctuary. Resident on hilltops with deciduous forest and grassland.

**107. Longtailed Nightjar
(*Caprimulgus macrurus*)**

Rare, resident, on the hillsides with moist deciduous forest.

**108. Large Brownthroated Spinetail Swift
(*Chaetura gigantea*)**

A rare resident. Affects rocky grass covered hilltop with very steep rocky cliffs.

**109. Whiterumped Spinetail Swift
(*Chaetura sylvatica*)**

A rare resident, of the open grassy hilltop.

110. Alpine Swift (*Apus melba*)

Rare. Status unknown, open hilltops with steep rocky cliffs.

111. House Swift (*Apus affinis*)

Status unknown, seen in small numbers with other swifts during November-March.

112. Palm Swift (*Cypsiurus parvus*)

A common swift, not resident inside the sanctuary but frequently seen in the open areas outside.

**113. Crested Tree Swift
(*Hemiprocne longipennis*)**

Not uncommon. Resident, breeds inside the sanctuary area. Frequents openings close to well wooded forest areas. Favourite roosts are isolated dead trees in between the open areas in the wooded forest. As many as 16 to 20 birds were seen roosting on such trees. They also nest on dead tree branches.

114. Malabar Trogon (*Harpactes fasciatus*)

A not uncommon, breeding resident. Affects evergreen and moist deciduous forest and also plantations like Mahogany. Sometimes seen in groups of about five birds.

**115. Lesser Pied Kingfisher
(*Ceryle rudis travancoreensis*)**

Not uncommon along the lake side. Breeding resident. Regular nesting area is the loose sand banks along the river. Feeds in the water body and along the main stream.

**116. Common Kingfisher
(*Alcedo atthis taprobana*)**

A common, resident seen almost all over the water spread areas along the water's edge. Breeding inside the sanctuary area.

117. Threetoed Kingfisher*(Ceyx erithacus erithacus)*

Rare, only two records from the streams along forests of the sanctuary. Resident but breeding not recorded.

118. Storkbilled Kingfisher*(Pelargopsis capensis capensis)*

Somewhat common along the river bed and waterspread areas of the sanctuary. Breeding also recorded. They are resident and become vocal during the breeding season.

119. Whitebreasted Kingfisher*(Halcyon smyrnensis fuscus)*

Commonest among the kingfishers. Breeding resident. Seen all over the sanctuary.

120. Chestnutheaded Bee-eater*(Merops leschenaulti)*

Common during October-December indicating local movements. They are resident, breeding within the area in small numbers. Prefer open area around the lake.

121. Bluetailed Bee-eater *(Merops philippinus)*

A rare migrant but sometimes large numbers are met with. Stays only for a few days. Possibly a passage migrant. Prefers open areas.

122. Green Bee-eater *(Merops orientalis)*

A common, resident. Large roosts of over 100 to 200 birds are seen in the sanctuary during December-January.

123. Bluebearded Bee-eater *(Nyctyornis athertoni)*

Only a few birds are seen in the well wooded drier areas of the sanctuary. Resident, but nest not yet discovered inside the sanctuary.

124. Indian Roller *(Coracias benghalensis)*

Not very common inside the sanctuary. Resident with local movement. Outside the sanctuary limit, in the catchment, seen nesting

regularly on some of the dead coconut trees. Very vocal during the breeding season.

125. Broadbilled Roller *(Eurystomus orientalis)*

Not uncommon, breeding resident. Affects the evergreen and semi-evergreen forest and also the well wooded areas on the fringes of the water bodies.

126. Hoopoe *(Upupa epops)*

Rare, resident. Breeding not recorded inside the sanctuary but fairly common in the teak plantations and rocky openings near Punnekad, 2 km from the sanctuary.

127. Common Grey Hornbill *(Tockus birostris)*

Rare. Status uncertain. Very few records from the sanctuary.

128. Malabar Grey Hornbill *(Tockus griseus)*

Common, resident, breeding in the sanctuary. Prefers evergreen and moist deciduous forests. It also comes to habitations to feed on some cultivated fruits and seeds.

129. Malabar Pied Hornbill*(Anthracoceros coronatus)*

A very rare resident. SA recorded this species as somewhat common in the 1930s. Only a few sightings from the sanctuary in 1984.

130. Great Pied Hornbill *(Buceros bicornis)*

This species is also very rare in the sanctuary now. A breeding resident. Outside the sanctuary area it is somewhat common. In the 1930s SA recorded it as one of the common species of Hornbill in Thattakad.

131. Large Green Barbet*(Megalaima zeylanica inornata)*

Rare. No recent record but during 1984 one bird was seen inside the sanctuary area. Status unknown.

132. Small Green Barbet *(Megalaima viridis)*

A common, breeding resident. Affects evergreen, moist-deciduous forests, plantations and also gardens and groves close to the sanctuary.

133. Crimsonthroated Barbet*(Megalaimea rubricapilla)*

Common, but seems to be rare due to its shy nature. Not evident except for its calls. A breeding resident. As many as 30 birds were seen on a small ficus tree during the fruiting season.

134. Wryneck (*Jynx torquilla*)

Rare. Status unknown. Seen in the scrub jungle and open deciduous forest.

135. Speckled Piculet (*Picumnus innominatus*)

Resident, and not uncommon. Breeding in the semi-evergreen and mixed bamboo forests. Dead teak trees are one of their favourite places for both feeding and nesting.

136. Rufous Woodpecker*(Micropternus brachyurus)*

Rare, resident, affects teak plantations, deciduous forest and bamboo areas.

137. Little Scalybellied Green Woodpecker*(Picus myrmecophoneus)*

Rare, resident, breeding in the semi-evergreen and moist deciduous forest.

138. Lesser Goldenbacked Woodpecker*(Dinopium benghalense)*

Resident, not uncommon and breeding. Affects semi-evergreen, deciduous forests, teak and other plantations.

139. Indian Goldenbacked Threetoed**Woodpecker (*Dinopium javanense malabaricum*)**

Common all over the sanctuary including plantations. A breeding resident.

140. Great Black Woodpecker*(Dryocopus javensis)*

A rare breeding resident. Affects the evergreen and moist deciduous forests.

141. Pigmy Woodpecker (*Picoides nanus*)

Not uncommon. Resident. Affects secon-

dary forest in the plantations and bamboo forest areas.

142. Heartspotted Woodpecker*(Hemicircus canente)*

Not uncommon, breeding resident. Affects secondary evergreen and moist deciduous forest and plantations with bamboo.

143. Large Goldenbacked Woodpecker*(Chrysocolaptes lucidus)*

Common. Resident all along the forest areas including teak plantations and cultivation around the sanctuary.

144. Indian Pitta (*Pitta brachyura*)

Common, and migratory. Abundant during the migratory (November-March) season all along the forest, plantation and scrub jungle near habitations. A large influx was noticed during certain days in November and March, lasting only for a few days.

145. Bush Lark (*Mirafra assamica*)

Resident but not common. Affects scrub jungle and short grasslands.

146. Rufoustailed Finch-Lark*(Ammomanes phoenicurus)*

Rare. One specimen was collected from a grassy area of Thattakad sanctuary during 1984. Not recorded by SA.

147. Malabar Crested Lark (*Galerida malabarica*)

Not uncommon, resident, seen on the stone covered grassy hilltops and also around cultivation.

148. Eastern Skylark (*Alauda gulgula*)

Rare, resident near cultivated open areas close to the sanctuary. Nesting recorded from the cultivated area outside the sanctuary.

149. Crag Martin (*Hirundo rupestris*)

Possibly a winter visitor. Rare, seen in the company of swifts and swallows in the open rocky hilltop area of the sanctuary.

150. Dusky Crag Martin (*Hirundo concolor*)

Rare and possibly a resident, but breeding not recorded within the sanctuary. Seen around Thattakad ferry in the company of swallows.

151. Eastern Swallow (*Hirundo rustica gutturalis*)

Common during migratory season. Winter visitor. Large congregations during certain days of November-December were observed in the open areas of the sanctuary and for a short duration. Large numbers roost on electric and telephone wires outside the sanctuary, and were also seen feeding in the paddy fields after harvest and at the time of ploughing.

152. House Swallow (*Hirundo tahiti*)

Not uncommon, resident but breeding not recorded. Prefers grassy hill slopes and steep rocky area close to settlements.

153. Wiretailed Swallow (*Hirundo smithii*)

Rare, possibly a winter visitor. Seen on the hilltop close to steep ridges of rocky outcrops.

154. Indian Cliff Swallow (*Hirundo fluviicola*)

Very rare, only one or two sight records from the open hilltops of the sanctuary.

155. Redrumped Swallow (*Hirundo daurica*)

Somewhat common during November-February possibly a migrant. Breeding not recorded.

156. House Martin (*Delichon urbica*)

Occasional visitor to this area. A rare migrant. Open hilltop area.

157. Grey Shrike (*Lanius excubitor*)

Very rare. Only two records within the sanctuary, both from the scrub jungle around open water body. No breeding records. Possibly a local migrant.

158. Baybacked Shrike (*Lanius vittatus*)

Rare. Status uncertain. No breeding records. Prefers open scrub and deciduous forest.

159. Rufousbacked Shrike (*Lanius schach*)

Only a single record from the sanctuary recently. Possibly a winter visitor. Seen in teak plantation.

160. Brown Shrike (*Lanius cristatus*)

Very rare, winter visitor to the sanctuary. Prefers open scrub and dry teak plantations towards the end of the winter season.

161. Golden Oriole (*Oriolus oriolus*)

Winter visitor. Common during migratory season. Affects evergreen, semi-evergreen forests, plantations and trees in urban areas close to the sanctuary.

162. Blacknaped Oriole (*Oriolus chinensis*)

Winter visitor. Rare. Scattered population occurs in the evergreen, deciduous forests and teak plantations.

163. Blackheaded Oriole (*Oriolus xanthornus*)

Common, resident, breeding in almost all the habitats inside the sanctuary. Found in evergreen, deciduous forests, plantations and in urban areas inside and outside the sanctuary.

164. Black Drongo (*Dicrurus adsimilis*)

Common, resident. Breeding inside the sanctuary. Affects deciduous forest and plantations.

165. Grey or Ashy Drongo (*Dicrurus leucophaeus*)

Winter visitor, common during the migratory season. Affects deciduous, semi-evergreen forest and plantations.

166. Whitebellied Drongo (*Dicrurus caerulescens*)

Rare, resident. Breeding not yet confirmed inside the sanctuary. Affects deciduous forest and teak plantations.

167. Bronzed Drongo (*Dicrurus aeneus*)

Not uncommon. Resident in evergreen and deciduous forest. Rare in teak plantations.

168. Haircrested Drongo (*Dicrurus hottentottus*)

Resident, subject to local movements mainly in connection with the flowering of silk cotton and *Erythrina*. Rare inside the sanctuary but common in Edamalayar area. Found in evergreen, deciduous forests.

169. Greater Racket-Tailed Drongo (*Dicrurus paradiseus*)

Common, resident, breeding in the sanctuary. Affects evergreen, deciduous forests and plantations.

170. Ashy Swallow-Shrike (*Artamus fuscus*)

Common, resident. Seen all along the edges of forest openings and water spread areas. Favourite nesting sites are dead coconut palms in the inundated areas around the sanctuary.

171. Greyheaded Myna (*Sturnus malabaricus malabaricus*)

Local migrant. Common during migratory season. Seen in the semievergreen, deciduous forests and teak plantations. Large flocks of over 100 birds seen flying around and suddenly settling on certain tree species such as teak and silk cotton during February-March.

172. Blyth's Myna (*Sturnus malabaricus blythi*)

Local migrant. Common during migration. Affects all types of forest, moves in flocks.

173. Rosy Pastor (*Sturnus roseus*)

Winter visitor. Not regular. In certain years, a few flocks pass through the sanctuary. Not seen staying in the sanctuary.

174. Common Myna (*Acridotheres tristis*)

Common, resident along the fringes of the sanctuary and also in some of the openings inside the sanctuary in association with cattle and some wild animals, like elephants.

175. Jungle Myna (*Acridotheres fuscus*)

Resident. Common in the open grasslands and inside light wooded forest areas. Sometimes seen

feeding in mixed flocks with common myna in the company of grazing cattle and wild animals.

176. Grackle or Hill Myna (*Gracula religiosa*)

Common, resident, breeding in large numbers in the sanctuary. Prefers evergreen, semi-evergreen, deciduous forests and also teak plantations.

177. Common Tree Pie (*Dendrocitta vagabunda*)

Common, breeding resident in the deciduous, semi-evergreen forests and plantations.

178. Southern or Whitebellied Tree Pie (*Dendrocitta leucogastra*)

Common in the forest. Resident and breeds in the sanctuary. Inhabits evergreen, moist deciduous forests and teak plantations.

179. House Crow (*Corvus splendens*)

Common resident. Though seen inside the forest it prefers areas around habitation.

180. Jungle Crow (*Corvus macrorhynchos*)

Common, resident in small numbers in company with the house crow. Met with even in deep jungle.

181. Pied Flycatcher Shrike (*Hemipus picatus*)

Common resident. Breeds in the deciduous forest and teak plantations.

182. Malabar Wood Shrike (*Tephrodornis pondicerianus*)

Not uncommon, resident. Affects secondary jungle and teak plantations.

183. Large Cuckoo-Shrike (*Coracina novaehollandiae*)

Common, resident in the mixed forest and teak plantations.

184. Blackheaded Cuckoo-Shrike (*Coracina melanoptera*)

Common, resident. Affects mixed forest, secondary jungle and teak plantations.

185. Scarlet Minivet (*Pericrocotus flammeus*)

Resident but not very common. Met with in flocks of 10 to 15 in the evergreen and deciduous forest and plantations.

186. Small Minivet (*Pericrocotus cinnamomeus*)

Rare. Resident in the deciduous forest and teak plantations.

187. Common Iora (*Aegithina tiphia*)

Common resident, breeds in the sanctuary. Almost all habitats but only few seen in the evergreen forest.

188. Goldfronted Chloropsis

(*Chloropsis aurifrons*)

Resident, not uncommon. Inhabits almost all types of forest.

189. Jerdon's or Goldmantled Chloropsis

(*Chloropsis cochinchinensis*)

Rare. Resident in the dry areas of the sanctuary.

190. Fairy Bluebird (*Irena puella*)

Common. Status unknown, nesting not recorded from the sanctuary. Start appearing during the onset of the SW monsoon and disappear during October, when the regular migration starts. Becomes vocal during April-June.

191. Greyheaded Bulbul

(*Pycnonotus priocephalus*)

Resident. Not uncommon in the evergreen forest areas of the sanctuary. Breeds in the sanctuary.

192. Rubythroated Bulbul

(*Pycnonotus melanicterus gularis*)

Common, resident, frequents evergreen deciduous and secondary jungle. Breeds in the sanctuary.

193. Redwhiskered Bulbul (*Pycnonotus jocosus*)

Common, resident in scrub jungle and also near habitations.

194. Redvented Bulbul (*Pycnonotus cafer*)

Common, resident in the light deciduous forest and scrub jungle near habitations.

195. Yellowbrowed Bulbul (*Hypsipetes indicus*)

Not uncommon, resident of evergreen and deciduous forest areas. It is also seen in the secondary jungle in old teak plantations.

196. Spotted Babbler (*Pelorneum ruficeps*)

Resident, not common. Breeding recorded. Frequents evergreen and deciduous forest, *eeta* and bamboo areas.

197. Blackheaded Babbler

(*Rhopocichla atriceps*)

Resident, common in the evergreen forest, *eeta* and bamboo areas and even in the thick undergrowth of old teak plantations.

198. Rufous Babbler (*Turdoides subrufus*)

Not uncommon, breeding resident. Affects dense scrub with tall grass, along stream sides in the evergreen to deciduous forest with *eeta* and bamboo brakes.

199. Jungle Babbler (*Turdoides striatus*)

A common breeding resident, of the disturbed and deciduous jungle and teak plantations. Also in scrub jungle near habitation.

200. Wynaad Laughing Thrush

(*Garrulax delesserti delesserti*)

Rare, resident, very rarely seen nowadays. Sálím Ali's survey described it as one of the commonest birds in Thattakad. Inhabits humid rain forest with dense undergrowth.

201. Quaker Babbler (*Alcippe poioicephala*)

Resident, rare. Frequents mixed bamboo and *eeta* jungle, cane brakes in evergreen forest.

202. Brown Flycatcher (*Muscicapa latirostris*)

Rare. A small population is seen in the sanctuary throughout the year. During the migratory season an

increase in population was noticed, indicating an influx of migrants. Seen in the evergreen, deciduous forests and plantations with low density of vegetation.

203. Brownbreasted Flycatcher

(*Muscicapa muttui*)

Rare. Winter visitor to the evergreen and semi-evergreen forests and bamboo areas.

204. Rufoustailed Flycatcher

(*Muscicapa ruficauda*)

Rare winter visitor to the evergreen and teak plantations with secondary vegetation.

205. Redbreasted Flycatcher (*Muscicapa parva*)

Rare winter visitor to the plantations and deciduous forest.

206. Whitebellied Blue Flycatcher

(*Muscicapa pallipes*)

Rare winter visitor (?) to the evergreen forests.

207. Bluethroated Flycatcher

(*Muscicapa rubeculoides*)

Rare winter visitor to the secondary forest, bamboo jungle and plantations.

208. Tickell's Blue Flycatcher

(*Muscicapa tickelliae*)

Not uncommon, winter visitor. Frequents evergreen and deciduous forest with open undergrowth, bamboo jungle and plantations.

209. Verditer Flycatcher (*Muscicapa thalassina*)

Not uncommon, winter visitor in the forest clearings, secondary jungle and to plantations.

210. Nilgiri Flycatcher (*Muscicapa albicaudata*)

Not common, but resident in the evergreen, semi-evergreen forest, and teak plantations with thick undergrowth.

211. Whitebrowed Fantail Flycatcher

(*Rhipidura aureola*)

Rare, resident, occurs in deciduous forests and plantations close to habitation.

212. Paradise Flycatcher

(*Terpsiphone paradisi leucogaster*)

Common. Mostly migratory. All over the forest and plantation areas, even close to the water's edge and habitations.

213. Blacknaped Flycatcher

(*Hypothymis azurea styani*)

Rare, winter visitor to the secondary jungle, bamboo forest and teak plantations.

214. Streaked Fantail Warbler

(*Cisticola juncidis*)

Rare resident, prefers reed beds, tall grass and cultivated areas along the fringes of the sanctuary.

215. Franklin's Wren Warbler

(*Prinia hodgsonii*)

Resident, subject to local movements, frequents scrub jungle with coarse grass and secondary vegetation along the water's edge.

216. Jungle Wren-Warbler (*Prinia sylvatica*)

Rare, resident in isolated grassy patches in the lower areas of the sanctuary.

217. Tailor Bird (*Orthotomus sutorius*)

Common, resident in scrub jungle and disturbed forest, and near habitation. etc. Breeding recorded.

218. Pallas's Grasshopper Warbler

(*Locustella certhiola*)

Rare winter visitor to scrub jungle and grasslands around water bodies.

219. Grasshopper Warbler (*Locustella naevia*)

Rare winter visitor. Affects edge vegetation of reservoirs and grassy hill slopes.

220. Broadtailed Grass Warbler

(*Schoenicola platyura*)

Resident but not common. Affects grass and scrub covered hillsides.

221. Thickbilled Warbler (*Acrocephalus aedon*)
 Winter visitor, not uncommon during migration. Frequents undergrowth in light forest, tall grasses and among vegetation along the water's edge.

222. Indian Great Reed Warbler (*Acrocephalus stentoreus*)
 Rare winter visitor to the reeds and scrub of damp areas.

223. Blyth's Reed Warbler (*Acrocephalus dumetorum*)
 Winter visitor. Common during migration. Affects bushes, secondary forest, undergrowth of plantations and deciduous forest, bamboo and *eeta* clumps, etc.

224. Paddyfield Warbler (*Acrocephalus agricola*)
 Rare, winter visitor to the grasslands close to water body reed-beds, bamboo forest close to water bodies.

225. Booted Warbler (*Hippolais caligata*)
 Rare, winter visitor found in the deciduous scrub jungle in the sanctuary.

226. Lesser Whitethroat (*Sylvia curruca*)
 Winter visitor, very few, but considerably large influx was noticed as passage migrants during certain days in the month of November in the scrub jungle and undergrowth of plantations and deciduous forest.

227. Tytler's Leaf Warbler (*Phylloscopus tytleri*)
 Very rare, only one record from the undergrowth of teak plantations in the sanctuary.

228. Tickell's Leaf Warbler (*Phylloscopus affinis*)
 Winter visitor. Very rare. Only two records from scrub jungle close to the reservoir from Thattakad.

229. Largebilled Leaf Warbler (*Phylloscopus magnirostris*)
 Not uncommon winter visitor. Seen in the evergreen, deciduous forest and plantations.

230. Greenish Leaf Warbler (*Phylloscopus trochiloides*)
 Fairly common winter visitor. Seen in the evergreen, deciduous forest and plantations.

231. Blue Chat (*Erithacus brunneus*)
 Winter visitor. Fairly common during migration. Seen in the *eeta* and bamboo forests. Evergreen forest and thick undergrowth of teak plantations.

232. Magpie-Robin (*Copsychus saularis*)
 Common resident in the neighbourhood of human habitation, secondary jungle, and plantations.

233. Shama (*Copsychus malabaricus*)
 Resident, not uncommon. Affects deciduous forest, bamboo patches and dense secondary undergrowth.

234. Indian Robin (*Saxicoloides fulicata*)
 Rare, resident. Seen on the rocky hilltops and isolated stony patches in the plantations along the fringes of the sanctuary.

235. Blueheaded Rock Thrush (*Monticola cinclorhynchus*)
 Winter visitor, not very common. Affects secondary evergreen jungle and the thick undergrowth in teak forest.

236. Malabar Whistling Thrush (*Myiophonus horsfieldii*)
 Resident, not uncommon, seen along the forest streams with *eeta* undergrowth and in the evergreen forest areas. Becomes vocal only during June-Septemeber when it is easy to locate the bird.

237. Pied Ground Thrush (*Zoothera wardii*)
 Rare, passage migrants, seen only for a short duration. Affects somewhat open forest ground with shrubs in the evergreen and plantation areas.

238. Orangeheaded Groundthrush*(Zoothera citrina citrina)*

Migratory, fairly common during season in the thick undergrowth of the wet forest floor and bamboo areas.

239. Whitethroated Ground Thrush*(Zoothera citrina cyanotus)*

Resident, rare. Though breeding inside the sanctuary area is not recorded, birds are seen almost throughout the year. They prefer secondary dense jungle, bamboo, *eeta* and shady ravines.

240. Grey Tit (*Parus major*)

Resident, not uncommon. Breeds in the sanctuary. Found in deciduous forest and teak plantations.

241. Velvetfronted Nuthatch (*Sitta frontalis*)

Resident, not common. Seen in the evergreen, deciduous forests and teak plantations.

242. Kerala Rock Pipit*(Anthus similis travancoriensis)*

Rare, resident in the grass covered rocky openings on the hill tops.

243. Paddyfield Pipit*(Anthus novaeseelandiae)*

Rare, resident, seen on the bare rock covered hill slopes.

244. Forest Wagtail (*Motacilla indica*)

Fairly common during migration. During November-February every year large influx was noticed. A few scattered populations exist throughout the migratory season on the floor of the forest areas.

245. Greyheaded Yellow Wagtail*(Motacilla flava thunbergi)*

Common during migratory season. Winter visitor to the sanctuary including water's edge and undergrowth of plantations.

246. Blueheaded Yellow Wagtail*(Motacilla flava beema)*

Rare, migrant; seen in the company of Greyheaded Wagtail.

247. Yellowbacked Wagtail (*Motacilla flava lutea*)

Rare, winter visitor, possibly a passage migrant.

248. Western Yellowheaded Wagtail*(Motacilla citreola)*

Rare, winter visitor, possibly a passage migrant.

249. Grey Wagtail (*Motacilla cinerea*)

Common, winter visitor seen along stream beds and rocky river banks.

250. White Wagtail (*Motacilla alba*)

Rare, winter visitor along the water courses of reservoir among scrub undergrowth.

251. Large Pied Wagtail*(Motacilla maderaspatensis)*

Common, resident. Breeds in holes in buildings. Lives close to human habitation and also water bodies.

252. Tickell's Flowerpecker*(Dicaeum erythrorhynchos)*

Common resident seen in the deciduous forest and teak plantations with *Loranthus* sp.

253. Purplerumped Sunbird (*Nectarinia zeylonica*)

Common resident in light secondary jungle and plantations. Also near habitations.

254. Small Sunbird (*Nectarinia minima*)

Common. Local migrant. Large influx was noticed during winter (Dec.-Jan.). Confirmed records of altitudinal migration from Munnar to lower country available during winter.

255. Loten's Sunbird (*Nectarinia lotenia*)

Rare, breeding resident. Prefers well wooded open country and moist deciduous forest areas.

256. Purple Sunbird (*Nectarinia asiatica*)

Common, resident in the deciduous forest, plantations and cultivated gardens.

257. Yellowbacked Sunbird

(*Aethopyga siparaja*)

Very rare. Possibly resident. Only 2 records during 1976 and 1984.

258. Little Spiderhunter

(*Arachnothera longirostris*)

Common, resident in the evergreen, moist deciduous forest and teak plantations with secondary undergrowth.

259. House Sparrow

(*Passer domesticus*)

Rare, resident in the nearby inhabited areas where it is common. Rarely met with in the open patches along the fringes of the forest.

260. Yellowthroated Sparrow

(*Petronia xanthocollis*)

Resident, not uncommon in the deciduous forest and teak plantations often seen on the electric and telegraph lines along the roadside close to the sanctuary.

261. Travancore Baya

(*Ploceus philippinus*)

Rare, only seen crossing over the sanctuary. Resident outside the sanctuary. Very common in the paddy fields and coconut gardens around the sanctuary about 10 to 15 years back. There is a steep decline in their population during recent years around this area.

262. Streaked Weaver Bird

(*Ploceus manyar*)

Except for 2 seen (RS) during 1976, there is no record of this species from the sanctuary.

263. Red Munia (*Estrilda amandava*)

Rare, resident. Frequents reeds and tall grass near water body.

264. Green Munia

(*Estrilda formosa*)

Rare, status unknown. Not breeding in the sanctuary.

265. Whitethroated Munia

(*Lonchura malabarica*)

Rare, seems to be non resident, seen in flocks of 10 to 15 during December in the grassland, bamboo forest and light secondary jungle.

266. White Backed Munia (*Lonchura striata*)

Common, resident. Flocks of 10 to 30 feed in the open grassland. Affects bamboo jungle, light secondary and deciduous forest where they are breeding.

267. Rufousbellied Munia (*Lonchura kelaarti*)

Rare, resident in the scrub jungle and bamboo clumps in and around waterbodies. Feeds in the grassland and cultivated fields near settlements.

268. Spotted Munia

(*Lonchura punctulata*)

Not uncommon, resident. Affects open forest patches with secondary jungle and grassland. Also comes to cultivation for feeding.

269. Blackheaded Munia (*Lonchura malacca*)

Perhaps the commonest resident munia. Seen among vegetation all along the water's edge, even nesting on plants in water. Feeds in grassy patches.

270. Common Rosefinch (*Carpodacus erythrinus*)

Rare, winter visitor to wooded country as well as scrub and bamboo forest in the sanctuary. Possibly a passage migrant to high altitudes where they are common.

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